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Click beetles: Genera of the Australian Elateridae (Coleoptera).—Andrew A. Calder. 1996. 401 pp., 420 figs. including 90 excellent habitus drawings. About $100.00 U.S.

This appears to be an excellent reference to the genera of Australian click beetles. The illustrations are excellent, especially the habitus ones. The treatment for each genus starts with the original citation, synonymy if any, and the type species. This is followed with a very detailed description that is the equivalent of just over two pages plus about three more pages of illustrations. Finally, there is a short section on geographical distribution (world and Australian), a list of the Australian species,

biology, and comments. The distribution of Australian species is usually given as one locality and state or else state or area of Australia.

There are 420 illustrations, including the 90 habitus drawings (one or two per genus). The other illustrations are of the male genitalia, female genital tract, and excellent SEM photographs of other parts (tarsi, heads, pronota, etc.).

The subfamilies are briefly described each with a list of included genera and arranged in phylogenetic order, but the genera under each are arranged in alphabetical order, which I find distracting; on the other hand, everyone knows the alphabet! In the key, it would have been very useful to have included a page reference for each genus.

The 660 Australian species are placed in 70 genera (48 are endemic) and eight subfamilies. A brief description and a list of genera is given for each subfamily. Fifteen new genera and seven new species are described; there are 13 species that remain unplaced and thus excluded from the fauna. Three other species, originally described as from Australia, could not possibly have come from Australia and thus are dropped from the list. Also dropped from the list is *Lacon modestus*, which was described from Australia, but has never been found "amongst the tens of thousands of Australian elaterids examined."

On the other hand, the more I looked at the "fine print," the more I wondered if anyone really paid any attention to the smaller details.

In many cases, the wording in the key does not match those in the descriptions. For example, in couplet 19 [the word prothorax should have been used, not pronotum], "antennae inserted into a U-shaped depression (Figs. 33, 42)" [Fig. 33 is dorsal view of habitus and Fig. 42 is the hind wing!]. This sentence is redundant to the first one except there Fig. 43 is that of the female genital tract. Furthermore, antennae is plural and therefore depression should also be plural or use the word each—this is a fairly common mistake throughout the book. "Tarsomeres 1–4 each . . . (Figs. 37, 44)" [respectively these figures show the claw plus the distal part of tarsomere 5 and the female genital tract].

Also in couplet 19, the phrase "hind coxal cavity distally closed (rear wall of cavity not visible)" stumped me at first. Had the author stated "not visible ventrally" or even better, as in the descriptions (pp. 36, 40, 45), "hind coxal plate with distal width same as greastest proximal width" it would have made sense. In the descriptions, it is stated, ". . . ; hind coxal cavity closed distally (rear wall of cavity not visible)." Actually the rear wall of the cavity is visible from an oblique view if the hind leg is pulled backwards.

Couplet 23, for *Diadysis*, "anterior section of pronotosternal suture not grooved" vs. "anterior portion of polished band along inner margin of hypomeral border." Are these characters the same?

Many of the illustrations do not match the key characters or even the description. For example, for *Glypheus*, compare couplet 25, "tarsomere 1 shorter than tarsomeres 2–4 combined" with the description on p. 182 that notes, ". . . slightly longer . . ." or measure these tarsomeres in Fig. 193 (slightly shorter), Fig. 194 (as long as). If this is because I am measuring them from different angles, then the author should have explained this in the introduction (dorsal or lateral view, from base to extreme tip including lobe, if any).

The enlarged illustrations of the lateral lobes of the male genitalia are good, but

they certainly do not like the overall illustrations (compare Figs. 313 with 314 or 367 with 368).

Many descriptions state "Prothorax . . . anterior angles not strongly produced, only covering half of eye (at most)," yet many illustrations show anterior angles not touching the eyes (see Figs. 79, 229, 265, 355, etc.). This "deception" could be the result of the fact that the head may be extended or protracted in relation to the prothorax.

Lacon is listed as a valid genus from Australia (see p. vi), yet on p. ix it is removed from the list. The information on *Lacon* on p. 97 should have been placed on p. 384 along with the other excluded species?

Despite my comments above, I still think that this a very useful book and worth the price. To prove the value of this book, the first Australian specimen I tried to identify was lacking the elytra, antennae, and tarsi, nevertheless, by thumbing through the habitus illustrations I was able to get a generic name, which I then verified by looking at the collection.—*Edward C. Becker, Agriculture Canada, Ottawa, ON, K1A OC6, Canada.*